

This file documents the data files and programs needed to reproduce the results in Croushore and van Norden "Fiscal Forecasts at the FOMC: Evidence from the Greenbooks", published in *The Review of Economics and Statistics*.

1 Summary

To replicate the results reported in the paper, place all the files in the working directory. Then

1. Run `GB_raw_data.gau` and `Actuals.gau` in GAUSS
2. Run `Create_GBFE.RPF` in WinRATS.
3. Run the WinRATS program that corresponds to the results that you wish to reproduce
 - `Table_2.RPF`
 - `Table_3.RPF`
 - `Table_4.RPF`
 - `Table_5.RPF` (also produces the results from Section II of the Appendix.)
 - `Table_6.RPF` (also produces Figures 4 & 5 as well as the results in Section III of the Appendix.)

2 Software

Calculations were done using GAUSS 15.0.7 build 3835, WinRATS Standard 9.00f, RATSDData 9.00, and Microsoft Excel 2013 running under Microsoft Windows 7 Enterprise Version 6.1.7601 Service Pack 1 Build 7601.

3 Data series

We work primarily with six series: SURPLUS, EXPEND, RECEIPTS, HEB, HEB6 and UNEMP as explained in Table 1 of the paper. Section I of the Appendix to the paper (particularly in subsections A and F) provides extensive details on the sources, definitions and preparation of our series.

4 Programs and Data files

Data were taken from multiple original sources and were processed in multiple steps.

1. Hand-collected Greenbook data from page scans of original Greenbooks (described in Section I.A of the Appendix to the paper) were stored in `GB_raw_data.xlsx`. These were then processed by the GAUSS program `GB_raw_data.gau` to produce series of forecasts at fixed forecast horizons for the first and last FOMC meeting of the month. Along the way, some series were spliced and series in nominal values were scaled by GNP or GDP values for the same Greenbook vintage and calendar date. The last Greenbook-reported value for each series in each quarter was also recorded. Running the GAUSS program six times (once for each series) produces six files containing formatted Greenbook forecasts: `GB_Receipts.xlsx`, `GB_Expend.xlsx`, `GB_Surplus.xlsx`, `GB_HEB.xlsx`, `GB_HEB6.xlsx` and `GB_Unemp.xlsx`. The program also produces the graph shown in **Figure 3**, as well as comparable graphs for the other series.
2. Vintage published statistics from ALFRED were stored in `ALFRED_series.xls` (details on the series may be found in the first sheet of the file.) The program `Actuals.gau` does the necessary transformations (scaling by GNP or GDP, conversion from monthly to quarterly) for comparison to the Greenbook forecasts and selects vintages appropriate for forecast evaluation (such as the first release and the pre-benchmark release) as described in Section I.D of the Data Appendix. Results were then stored in the file `Actuals.xlsx`.
3. The files produced from the two preceding steps were matched up in the RATS program `Create_GBFE.RPF` to produce series of forecast errors for each forecast horizon and each outcome measure. Missing values were inserted when benchmark changes intervened between the date of the forecast and the date at which the official estimate was published. (The list of benchmark revision dates may be found in Table 3 of the Appendix.) Results were then stored in the files `GBFE_SURPLUS.rat`, `GBFE_RECEIPTS.rat`, `GBFE_EXPEND.rat`, `GBFE_UNEMP.rat`, `GBFE_HEB.rat`, and `GBFE_HEB6.rat`.
4. The results shown in **Table 2** were produced by the WinRATS program `Table_2.RPF` using the data files produced in step 3, above.
5. The results shown in **Table 3** were produced by the WinRATS program `Table_3.RPF` and recorded in the file `Table_3.xls` using the data files produced in step 3. The values shown in the paper appear in column F of the spreadsheet under the heading *Fraction>0* and p-values for the null hypothesis that this Fraction=0.5 are shown in column G under the heading *p-Value*.
6. Results in **Table 4** rely on hand-collected CBO forecasts contained in the file `CBOHorseRacePreBench2016.RAT` as well as annually aggregated Greenbook forecasts from the file `GB forecasts to compare with CBO 2016 Aug alt.xlsx`. The latter were prepared by hand, selecting the Greenbooks from the meeting date closest to the publication of the CBO

estimates and temporally aggregating quarterly estimates over the current calendar year as well as the following calendar year. Calculations are performed in the WinRATS program `Table_4.RPF`. The RMSFEs reported in the first two rows of Table 4 correspond to the values labelled as RMSE(A) and RMSE(B) in the first line of the results reported for each pair of forecasts. The p-values reported in the remaining rows of the Table are taken from the last column of the results.

7. Results in **Table 5** rely on additional series of Greenbook forecast errors contained in the files `GBFE-PCPI.RAT`, `GBFE-PGDP.RAT`, `GBFE-RGDP.RAT` and `GBFE-YGAP.RAT`. Details on the data sources used in the construction of these series may be found in Section II of the Appendix. The results shown in Table 5 of the paper are produced by the WinRATS program `Table_5.RPF` together with further results presented in Section II of the Appendix. Calculations are summarized in a series of report windows, each of which follows the same format as the tables from the paper and the Appendix.

- Column 1 indicates the forecast horizon, from shortest (0L) to longest (4F)
- Columns 2-4 show the results for the full sample
- Columns 5-7 show the results for the pre-1991 sample
- Columns 8-10 show the results for the post-1990 sample

8. Results in **Table 6** are produced by the WinRATS program `Table_6.RPF` and the data file `Table_6_data.xlsx`. The data file contains the data from Coibion et al. (2012) (as detailed in the Appendix, Section III) as well as data from the files `GB_Surplus.xlsx` and `GB_HEB.xlsx`. The program collects results in a number of report windows; report window #1 contains the results reported in **Table 6**, while report window #2 contains the results reported in Section III of the Appendix. It also produces the graphs shown in **Figures 4 and 5** (as well as comparable graphs for the other models shown in Table 6.)

5 Other Files

The following files contain procedures used in some of the programs mentioned above and must be available in the working directory when the programs are run.

DCSvN2016.gcg data handling utilities for GAUSS

SignTests.src Tests for non-zero medians.

DieboldMariano.src Diebold-Mariano and Harvey, et al. tests for forecast performance and forecast encompassing.